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SURFACE MOUNT OPTOELECTRONIC COMPONENT

**ABSTRACT** 

The invention relates to a surface mount optoelectronic component. A thick, electrically

conductive material is used to serve as a base material for the assembly. An opaque plastic

material is used to provide housing for the whole component. A cavity formed on a top surface

of the optoelectronic component is designed within the plastic material. An optoelectronic chip

is mounted within this cavity. This cavity is filled with a hard transparent or translucent resin

material so that optical radiation may be transmitted or received via this window. Electrical

connection(s) between the chip and the base material is/are provided by a metallic wire (4).

Subsequent connections to external sub-systems, such as PCBs, are provided by the base

material itself. No extra mechanical forming processes are necessary to create the connections.

The base material extends all the way from a middle portion to a bottom surface of the

optoelectronic component, and to one of the side surfaces, ultimately extending and protruding

outside the package. The bottom surface is used for connection when a top illuminator is

required. Alternatively, one of the side surfaces could be used for connection when the

optoelectronic component is used as a side illuminator.

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